

species; and those of North America have not been neglected. But several are still in doubt or obscurity; and few of them, even those of the Atlantic States, have been sufficiently studied alive, although this is nearly indispensable. Professor Foster, according to the wishes of botanists who recognize the need of the undertaking and his unequalled fitness for it, is disposed to undertake an elaboration of the species; and he has appealed to me for aid in the difficult matter of procuring ripe seeds or living roots of certain American species and forms which are not in his extensive collection. He particularly wants *I. tridentata* and *I. tripetala* from the Atlantic side of our continent, *I. Hartwegi*, *I. Beecheyana*, *I. macrosiphon*, as well as two recent species of Watson, *I. tenuis* and *I. bracteata*, from the western portion. For these and for any other rare or local forms—for all wild Irises, except our common eastern species—an appeal is now made. Seeds and roots contributed to the botanic garden of our Cambridge will be thankfully received and cared for, and a goodly portion promptly transmitted to Professor Foster in Cambridge, England, where we may expect them to be fully investigated. For, in a letter to me Professor Foster writes, "I do not like to come to any conclusion about a plant until I have had it under my eyes alive, and know its whole story from seed to seed again. I mean I do not feel that I have really got hold of the form until I have done this, though of course one can learn a good deal short of that. Hence I am anxious to get hold of living plants. Your North American forms are most interesting when the morphology and geographical distribution are worked together, and in connection with the Asian forms."

Note that seed, to be of any good, should be thoroughly ripe; and that living roots are in best condition for transmission in early autumn.

ASA GRAY.

**On petiolar glands in some Onagraceæ.**—At a recent meeting of the Academy of Natural Sciences of Philadelphia, Mr. Thomas Meehan remarked that stipules were unknown in Onagraceæ, but in *Ludwigia* (*Isnardia*) *palustris* there were two minute conical gelatinous glands, at the base of each leaf, that appeared to be stipular. They existed in series of specimens representing the Atlantic and Pacific coast, and from Europe, those from California being larger than in specimens from other localities. They are found in all the species of *Ludwigia* and *Jussiaea* that he had been able to examine. In these they appeared petiolar rather than stipular. In the dried specimens of *Circea* a dark spot indicated the position occupied by the glands in other species. They mostly varied in form and exact position with the species, and only for having been wholly overlooked by describers might have afforded some good specific characters. The discovery he regarded as interesting, as confirming the views of those botanists who had brought *Turneraceæ*, in which the petiolar glands were known to exist, in close relation with *Onagraceæ*.

In the specimens of *Ludwigia palustris*, dried to exhibit with this communication to the academy, a single capsule only, cut across for examination, projected the seed into his face while the capsule was being examined with a lens, indicating a projecting power not before known to exist in the species.—T. M.

**The Square Bamboo.**—Some of our readers may remember an article in *Nature*, for August 27, 1885, giving some account of the square-stemmed bamboo, which has recently been brought to light by Dr. Macgowan, who sent a notice of it, and also some living plants, to Kew. It appears to be a veritable species and not a monstrosity. Most of what is known about it is recorded by Dr. Macgowan, a medical missionary who has long lived in China, in the *Chinese Recorder*, April, 1885 and 1886. "It grows wild in the north-eastern portion of Yunnan, on the sequestered mountains." Dr. Macgowan last summer sent a beautiful cane made of it, with silver mounting, on which the name of Gray is inscribed in Chinese characters, and the interesting present reached the botanist to whom it was presented on the morning of his seventy-sixth birthday.

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## EDITORIAL.

THE BOTANICAL GAZETTE extends its best wishes to botanists for the new year and expects to record a year of unusual activity among American botanists. It is a time for good resolutions, and botanists should not be behind in this matter. The GAZETTE has made more good resolutions than ever before, but to carry them all out must depend in a large measure upon the hearty co-operation of fellow workers. The various associations of this country and our botanical periodicals have brought us together in a compactness of organization and friendliness of feeling that is the promise of great things. The resolution we would like to have each botanist make with the new year is to do some good work and see to it that none of it goes unrecorded. Our various departments furnish ample room for all forms of communication, large or small, formal or informal, and we want botanists to use them. We will try to keep our readers abreast of the work in this and other countries, but we want their co-operation in every direction. We would call attention to the department of "Notes and News," and ask all botanists to send us any unpublished scraps of information they may meet concerning the work or movements of botanists. Among "Open Letters" we would give place to any expressions of opinion, or any discussion that may be of general interest. In short, we welcome all botanists to all departments of the GAZETTE, excepting the editorial, and even that can be freely discussed in "Open Letters." It is hardly necessary to add that all departments of botany must feel absolute freedom in applying for space, and no one need complain of a failure to obtain a reasonable hearing.